

CLAIMS

1. Support (7) for an acoustic resonator (4), characterized in that it comprises at least one bilayer assembly comprising a layer (11) of high-acoustic-impedance material and a layer (12) of low-acoustic-impedance material made of a low-electrical-permittivity material.  
5
- 10 2. Support according to Claim 1, characterized in that the electrical permittivity of the low-acoustic-impedance material is less than 4, preferably less than 3.
- 15 3. Support according to Claim 2, characterized in that the relative electrical permittivity of the low-acoustic-impedance material is less than 2.5.
- 20 4. Support according to any one of the preceding claims, characterized in that the low-acoustic-impedance material comprises SiOC.
- 25 5. Support according to Claim 4, characterized in that the low-acoustic-impedance material comprises porous SiOC.
- 30 6. Support according to any one of the preceding claims, characterized in that it comprises one or two bilayer assemblies.
- 35 7. Support according to any one of the preceding claims, characterized in that the high-acoustic-impedance material comprises at least one of the following species: aluminium nitride, copper, nickel, tungsten, gold, platinum, molybdenum.
8. Support according to any one of the preceding claims, characterized in that the layer of

high-acoustic-impedance material has a thickness of between 0.3 and 3.2  $\mu\text{m}$ .

9. Support according to any one of the preceding  
5 claims, characterized in that the layer of low-acoustic-impedance material has a thickness of less than 0.7  $\mu\text{m}$ , preferably between 0.3 and 0.7  $\mu\text{m}$ .

10. Acoustic resonator (4) comprising an active  
10 element (6) and a support (7), characterized in that the support (7) comprises at least one bilayer assembly comprising a layer (11) of high-acoustic-impedance material and a layer (12) of low-acoustic-impedance material made of a low-electrical-permittivity  
15 material.

11. Resonator according to Claim 10, characterized in that the active element (6) comprises at least one piezoelectric layer (9) placed between electrodes (8,  
20 10).

12. Integrated circuit (1) comprising a substrate (2),  
a set of interconnects and an acoustic resonator (4)  
that is provided with an active element (6) and with a  
25 support (7), characterized in that the support (7)  
comprises at least one bilayer assembly comprising a layer (11) of high-acoustic-impedance material and a layer (12) of low-acoustic-impedance material made of a low-electrical-permittivity material.

30 13. Circuit according to Claim 12, characterized in that the acoustic resonator (4) is placed on the set of interconnects (3).

35 14. Circuit according to Claim 12, characterized in that the acoustic resonator (4) is placed near the set of interconnects (3).

15. Circuit according to any one of Claims 12 to 14, characterized in that a layer of low-acoustic-impedance material is placed at the same level as an interconnect layer.